

REMARKS

Claim Rejections 35 U.S.C. §112

Claims 1-10 have been cancelled. Claims 20-21 have been amended to change “the lid sensing lock” to --the lid lock-- thereby providing proper antecedent basis as noted by the Examiner. Claims 22-24 have been added. Therefore, claims 11-24 are pending in this application.

Claim Rejections 35 U.S.C. §102

Claims 1-15 and 17-20 have been rejected under U.S.C. §102(b) as being anticipated by Hapke. In addition, Claims 1-15 have been rejected under U.S.C. §102(b) as being anticipated by Case.

With respect to Case, claims 11-16 have been amended to better define the orientation of the components in the claimed invention. In particular, it is required that the hook pivot about an axis that crosses an axis along which the lid opens.

It is believed that this amendment distinguishes these claims from the locking lever 68 shown in Fig. 1 of Case. In Case, the lid opens generally upwardly (with respect to the Fig. 1) and the hook 68 moves horizontally to pivot about a vertical axis generally aligned with the upward axis along which the lid opens. In this orientation there is no possibility that opening of the lid will generate torque on the pivot of the hook and so the benefits of the present hook design, in which the force of opening of the lid does not generate a rotational torque about the hook pivot, is neither suggested nor taught.

The present invention as claimed is readily distinguished from the Hapke reference as may be seen most easily from Figs. 10 and 11. In Hapke, the shape of the hook/actuator 24 is such that an upward force on the lid 13 will tend to rotate the hook/actuator 24 about its shaft 25. For this reason, rotation must be blocked, in this case, by the interaction of a stop surface 73 and a tip 53, shown generally in Fig. 12 that prevents rotation until the actuator is released. A disadvantage of this approach is that energy must be supplied to the device to retain it in locking mode and, of course, additional mechanism must be provided.

In contrast, and as best seen in Fig. 8 of the present invention, lifting of the lid 12 will provide no net torque on the hook 30 because of the positioning of the pivot point of the hook 30

and the shape of the hook 30. Per the claim amendments the axis of the hook crosses the axis of opening of the lid.

Claim 17 requires a spring mechanism that tends to urge the hook both to the locked and unlocked position, depending on its position. The Applicant can identify in Hapke only a spring 40 that tends to urge the hook toward the unlocked position. Because spring 40, which appears in Fig. 6 and 9, appears to provide only a single direction of biasing, it is not the “over center” mechanism required of the claims. There is a blocking structure in Hapke that tends to prevent the hook from moving to an open state, but this is readily distinguishable from the requirements of the claim language that there be an “urging of the hook toward the first position when the hook is proximate to the first position and urging the hook toward the second position when the hook is proximate to the second position.”

Claim Rejections U.S.C. §103

Claim 16 has been rejected over Hapke or Case based on an assertion that it would be obvious if one of ordinary skill in the art were to modify the size and shape of the hook and aperture. While Applicant agrees that mere changes in size may not be patentable, all possible configurations of the hook cannot be a priori obvious simply because they are changes in sizes and shape.

In this case, Applicant believes that, absent an express teaching of a particular benefit, a person of ordinary skill in the art would not provide a hook that limited its engagement with the lid but would generally prefer an arbitrarily deep engagement to ensure engagement with the lid and to limit the possibility that normal tolerances in manufacturing might prevent reliable engagement.

An advantage to the present invention is that it provides a structure that can be used to determine whether the lid is locked or whether the bolt is extended but the lid is missing, indicating that the washing machine may be in a dangerous unlocked condition and yet that does not require a special aperture in the lid, for example, with a bottom surface. The particular features of a central tooth and flanking shoulders are more than just a change in size as generally being recognized as obvious.

Claim 21 requires that a movable contact slide over a stationary contact such as normally would disengage the two but also that there be a cam surface that lifts the sliding contact transversely away from the stationary contact. Applicant has reviewed the Paul reference cited

and is unable to identify the sliding contacts that would anticipate the first element of the present invention seeing only contacts that essentially move apart and together on spring levers. The claimed feature of the present invention is best shown in Figs. 9-11, which illustrates both how sliding disengages the contacts and then the cam surface lifts one contact away from the other in overtravel. It may be helpful, in this regard, to identify any elements in Paul that are believed to correspond to the stationary contact and the sliding contact that moves laterally over the stationary contact.

Applicant has added new dependent claims 22-24 that are generally similar to withdrawn (and now cancelled) claims 5, 6, and 8, recognizing that these new claims may be subject to restriction if the independent claim 11 is not allowed. These claims were added because it is believed that the mounting features described in these claims are logically related to the orientation of the hook as now included in the amended claims.

In light of these comments and amendments, it is believed that claims 1-24 are now in condition for allowance.

The Commissioner is hereby authorized to deduct any fees arising as a result of this or any other communication from Deposition Account 50-1170.

Respectfully submitted,

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